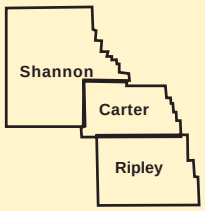
Volume 5, Issue 1

Spring 2008

Conservation Currents



MISSOURI DEPARTMENT OF CONSERVATION

PROJECTS, ISSUES AND PROGRAMS IN SHANNON, CARTER AND RIPLEY COUNTIES

SPECIAL POINTS OF INTEREST:

INSIDE THIS ISSUE:

Current Conversations

Designated Roads and Woods Trails on Sunklands Natural Area

Michael Bill
Resource Forester

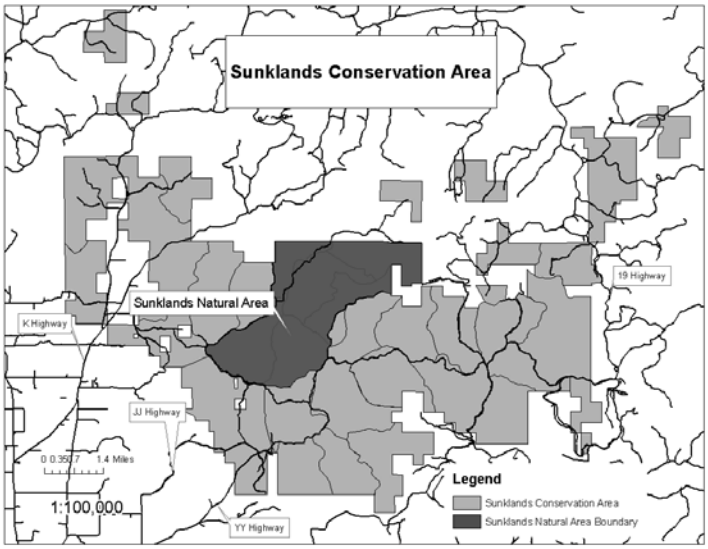
The Mission of the Missouri Department of Conservation is to protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.

More than 6,000 acres of the Sunklands Conservation Area and adjoining lands owned by Pioneer Forest and the Ozark National Scenic Riverways are designated as Sunklands Natural Area. The Sunklands Natural Area was established in two phases in 1980 and 1999 in recognition of the high-quality natural features and rare species found on the area. Missouri Natural Areas are examples of our Missouri's natural heritage and conserve some of the last remnants of what the state used to look like at the time of the early settlers.

Our Natural Areas are special places and have specific guidelines for their management. Natural Areas are managed to conserve the natural communities or wildlife habitats and rare plant and animal species that they protect. The Sunklands Natural Area plan describes how these species will be protected or conserved. Hunting and fishing are allowed on nearly all of the Missouri Natural Areas owned or managed by the Missouri Department of Conservation as per statewide and or special regulations of the Missouri Wildlife Code.

Recently, the Missouri Department of Conservation's ***Next Generation of Conservation*** strategic plan promises Missourians we will "*conserve plants, animals and their habitats"* by "*focusing restoration and management efforts…in those areas of Missouri with the greatest opportunity for the conservation of plants, animals and natural communities."* In addition, we pledge to "*actively manage Conservation Areas to serve as role models for best management practices and natural community conservation that benefits a diversity of wildlife*."

In order to comply with the Department's mission statement, the Sunklands Natural Area plan, and the Next Generation of Conservation goals, it is necessary to minimize negative impacts to the area resources. For these reasons, the following existing restrictions are enforced in the Sunklands Natural Area:



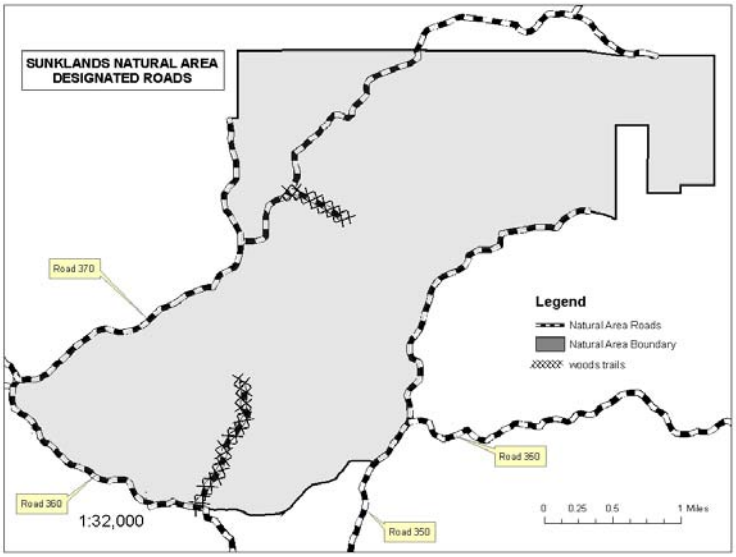
· Unauthorized vehicles are prohibited in the Natural Area, except for designated roads and woods trails as identified on the adjoining map.

· An exception to the road restrictions is that vehicles will be allowed to use established woods trails during deer season to retrieve harvested deer. Any other vehicle use on roads or woods trails that are not designated is restricted.

· Vehicle camping will only be allowed in the Natural Area at sites with designated camping area signs.

Continued on page 2

It should be noted that these restrictions ***apply only to the 6,000 acre Sunklands Natural Area*** and ***do not apply*** to any other roads on the 32, 000 acres that comprise the Sunklands Conservation Area. For further information about the Sunklands Natural Area or a for more detailed map of Sunklands Conservation Area contact Clint Dalbom, District Supervisor at 1 (573) 226-3616 ext 23 or Michael Bill, Resource Forester, Sunklands' Area Manager at 1 (573) 226-3616 ext 33



Protection

Spring Smallmouth Fishing

Ryan Duey
Conservation Agent

Spring is a great time to get out and fish for black bass on the Current River. Black bass include largemouth, smallmouth, spotted bass, and all other black bass hybrids. The most common type of back bass in Missouri streams and rivers is the smallmouth.

Fishing for smallmouth bass by wading or floating rivers offers a pleasurable opportunity to enjoy many different aspects the lower Ozarks. Water levels are normally high this time of year, allowing the bass to move freely and disperse from winter habitats. Once you understand the type of habitat black bass prefer, locating them takes little effort. During the spring months, fish are often found in areas with large boulders, fallen tree snags, and undercut banks. Structures such as this divert strong currents and create a relaxing habitat where these fish don't have to fight the current.

"During the spring months, fish are often found in areas with large boulders, fallen tree snags, and undercut banks."

During the spring, smallmouth bass are preparing to mate and typically lower their guard making them more susceptible for angling. Smallmouth may utilize sandy substrates for spawning, but they prefer rock and gravel. As the time for spawning approaches, the males establish nests and territories. Many smallmouth anglers catch and release fish during these periods, especially female bass. After spawning, the females move to deeper water. Males stay on the nests as guardians of the fertilized eggs until the eggs hatch. After the eggs hatch the males also move to deeper pools.

As with any predator fish species, one of the most important aspects of successful fishing is knowing what food the fish prefer during a particular time of year. Like all fish, smallmouth preferences change depending on the availability of the prey. In spring, their favorite foods are minnows and shiners. As early summer approaches, crayfish become abundant, especially in shallow rock riffle habitat. This is the number one food choice for smallmouth during early summer. As summer progresses and crayfish numbers decline, due mostly to predation by bass, smallmouth must again rely heavily on the more available minnows. Throughout this feeding pattern are periods of increased aquatic and terrestrial insect foraging, especially at peak insect hatches. Hellgrammites, the larval form of the Dobson fly, are especially important. This insect is abundant in some stream riffle habitat throughout summer and is aggressively sought by bass. I recommend fishing with a light to medium action rod with an opened face spinning reel lined with 6 pound test line. As far as artificial bait is concerned, I would fish using a green or brown colored tiny brush hog with a 1/16 oz jig head.

The daily limit for black bass is six (6), with a possession limit of twelve (12). Black bass caught in the Current River may only be kept from the fourth Saturday in May through February 29. Methods for catching black bass are restricted to pole and line, trotline, throwline, limb line, bank line, and/or jug line. All black bass caught on the Current River less the twelve (12") inches in length must be released unharmed immediately.

Private Lands

Native Plants and Gardening

Don Foerster
Private Lands Conservationist

I am sitting in my office watching a cold winter rain fall and day dreaming of summer and wildflowers. A few years ago my wife and I started using native grasses and flowers in our garden and for landscaping. Now I cannot wait until spring brings the wonderful colors to our yard a garden.

Gardening with natives will reduce the time, effort, chemicals and water needed to produce the yard that will be the envy of all the neighbors. The following information will enable you to get started on the path to gardening with natives.

First choose a site where you want to plant. One of the wonderful things about using natives is that this can be any area in your yard. A dry or wet area, shallow or deep soils, in full light or partial light. Site conditions do not matter because there are native plants that are adapted to all of these areas and conditions–it is just a matter of selecting the correct plants for your site.

Do you use seed or potted plants? Many species can be grown from seed successfully. Others are slow growers and do better when started from potted plants or root stock. Generally plants propagated from seed bloom in the second or third year so if you want quicker results, use potted plants or root stock. The cost of seed can range from $35 to $200 per pound. Naturally, potted plants and root stock are more expensive–usually about $2.50 for each root or $4.00 for a 4" potted plant. The decision to use seed or potted plants/root stock depends on a number of factors including the size of the area to be planted, cost of seed and/or plants, and how quickly you want the plants to bloom.

Good site or bed preparation will reduce weeds, increase the chances of seed germination and make planting easier. Site preparation should begin in the fall with spraying to remove unwanted vegetation. Use glyphosate at a rate of 1 ½ - 2 pints in 10 gallons of water per acre. I would also spray again in the spring before planting. Two weeks after the last spraying, till the site or bed for planting. Remember good site prep will save you time and work.

Wildflowers show up best in a mixture including native grass so arrange the planting so that your grasses provide a back drop for your flowers. With this in mind, sow the seeds in small groupings within the bed based your design (bloom time, height of plant, color, etc.). Then rake lightly to help cover the seed and roll to firm the soil. Next cover the areas in between the planting with landscape cloth. When planting potted plants or root stock, place the landscaping cloth before transplanting. This greatly aids in keeping out unwanted plants. Cover the landscaping cloth with bark, saw dust or pea gravel.

Because most native plants spend the first year establishing their root systems, they do not produce much above ground growth. The success of your new planting will depend on keeping competition from unwanted plants to a minimum. Be careful when weeding because the new seedlings are often mistaken for weeds. Proper identification of plants is the key to successful weeding.

One of the wonderful things about native plants is they are adapted to the soil conditions and climate of our area. They need no fertilization and insects are usually not a problem. This makes maintenance requirements minimal.

Remember that if you planted seed it will be two to three years before your garden will be in maximum bloom. If you used root stock it will be the following year before you see the best out of your plantings. Be patient and you will be rewarded with a garden that will convince the neighbors you have a green thumb.

The following are places to purchase Missouri source seeds, root stock and plants:

Hamilton Native Outpost (417-967-2190)
www.hamiltonseed.com.

Pure Air Native Seed Store (660-488-5531)
www.pureairseed.com/

Missouri Wildflower Nursery (573-496-3492)
www.mowildflowers.net

"Many species can be grown from seed successfully."

"Native plants are adapted to the soil conditions and climate of our area."

Education — Missouri Archery in Schools Program (MASP)

Pat Holloway
Conservation Education Consultant

Many kids love to play with a bow and arrow. Some may even try to make their own bow and attempt to shoot it outside. As a child I remember searching for the right size limb that would bend enough to send an arrow flying. I know some adults who still attempt to build bows with much success. A couple of summers ago, during Day Camp, the Boy Scouts tried to help me use a bow and arrow to hit a huge target. I found that I needed more step by step instruction and lots of practice.

"Archery in schools is designed for all students."

The bow and arrow was one of the first tools early humans used for survival and is still used by many. During the 2006-2007 archery hunting season in Missouri, more than 43,000 deer and 2,900 turkeys were taken using a bow. Today, archery has grown to become a popular sport that is open to many varied participants. Archery in schools is designed for all students, regardless of their athletic ability or experience.

"There is free training for teachers to become certified to teach the National Archery in the Schools Program."

Missouri recently became one of 40 other states to champion National Archery in the Schools Program. The Missouri Department of Conservation supports the goal of teaching students the basics of target archery as part of the school curriculum. The Missouri Archery in the Schools Program unit can be taught during school physical education classes in grades 4 through 12 using the safe, consistent techniques of the National Archery in the Schools Program 11-step process. The eleven steps focus on form, shot execution and follow-through. The archery program is aligned with Missouri's Grade Level Expectations across the curricular areas.

Research with schools participating in the archery program has shown increased student attendance, less negative behaviors and overall improvement in self-confidence of participating students. Archery can become a life long recreational activity. Unlike most other sports, performance and skill in archery can improve with age. Success in archery depends on training, positive reinforcement and coaching rather than age, size, or physical ability. Upper body, shoulder and arm strength and eye-hand coordination can be developed. Gross and fine motor skills improve with guidance. Archery adapts to the physical needs of the individual and archers can work to improve their own skills.

Missouri Department of Conservation Outdoor Skills Specialists throughout the state are scheduling free training for teachers to become certified to teach the National Archery in the Schools Program 11 Steps to Archery Success. Grant opportunities to help with the cost of the required equipment are available through MDC.

If you know someone who might be interested in starting an archery program in their school, pass along this information. Those interested in the recreational skills program can

1. Visit the MDC web page http://mdc.mo.gov/teacher/masp/

2. Request an introductory DVD from a Conservation Education Consultant

3. Contact an Outdoors Skills Specialist to schedule training

4. Make application to MDC for a $500 grant to purchase archery equipment

5. Become a certified Basic Archery Instructor at your school

Forestry

What Good Is A Clearcut Anyway?????

Michael Bill
Resource Forester

"What good is a CLEARCUT anyway? Those clear-cuts will be nothing but brush forever. You'll never see a forest in my children's lifetime."

These are comments that I hear nearly every day as I discuss the controversial topic of clear cuts, also known as regeneration harvests, with people who live and work in Shannon County. Regeneration harvests are part of a forest management technique called even-aged management. Even-age management is used to manage trees of nearly the same age.

So why should we manage timber as even-aged? First, many forest areas in the Ozarks are already even-aged. Often even-aged stands are the result of a complete harvest of all timber on a site at some time in the past. This was commonly done in the early 1900's during the logging boom. Stands can also be even-age because of natural reasons such as tornados, severe droughts, stand replacing fires, or disease and insect outbreaks. Many of the even-aged stands found in the Ozarks are becoming mature. This is especially true with ridge-top areas dominated by black and scarlet oak, which reach maturity at approximately 80 years of age. When a stand becomes mature, tree growth is slowed. This lack of vigorous growth causes trees to become susceptible to insects such as the red oak borer and/or disease. This is often referred to as oak decline. Managers are then faced with difficult decisions on how to best improve the health of these stands.

One way to increase the health is to start them over by a regeneration harvest. Regeneration harvests can be done in two different ways, through a regeneration cut/ "clear cut" or a shelterwood. In a regeneration cut all of the timber is remove including the poorly-formed trees, trees stunted by shade, and trees that are not well-adapted to site conditions. A shelterwood harvest is similar to a regeneration harvest except that scattered healthy trees are left standing to provide dens and mast for wildlife and to maintain a look that is more visually pleasing. It should be noted that regeneration harvest are used only as a last measure when no other type of management will improve the health of the stand. Only about 1% of the total acreage of Rocky Creek, Angeline and Sunklands Conservation Areas are regenerated every year.

In the first step of a regeneration harvest the merchantable timber is removed and sold. The remaining trees are typically not merchantable, poorly formed, small, or undesirable species. We don't want these trees to be in the new stand. These trees are removed by cutting or girdling. Many of the trees that are cut are small diameter, however, a small diameter tree should not be confused with a young tree. Often these trees are the same age as the large saw timber that surrounds them but have grown very slowly as a result of shading by larger trees. These stunted trees usually never grow large, even when the competing bigger trees are removed. A vigorously growing new stand of timber replaces the old a short time after both sawtimber and stunted trees are removed by a regeneration harvest. Although these brushy areas are unsightly to some they are high quality habitat for deer, turkey, rabbits, and especially quail.

"In a regeneration cut all of the timber is remove including the poorly-formed trees."

When a clearcut (regeneration) stand is about 20 years old it is ready for its first thinning, often called a timber stand improvement or TSI. This is done to allow the healthy "crop trees" more room to grow. Trees in these stands are usually between 4- 6 inches in diameter and the brushy understory that was there during the first 10 years has been shaded out by the rapidly growing trees, many of which resulted from stump sprouts.

During the past year the Missouri Department of Conservation has contracted out over 1000 acres of TSI work. Some of this TSI work is visible on Highway 19 south of Eminence. Stop and take a look and I bet you'll be surprise that a clearcut can be good for something; growing young health trees which will provide quality wood products and wildlife habitat for future generations of Missourians.

"Only about 1% of the total acreage of Rocky Creek, Angeline and Sunklands Conservation Areas are regenerated every year."

(Left) - 25 year old clearcut with "Timber Stand Improvement" in progress.

(Left) - Recently harvested shelterwood. Notice oak and pine seedling.

Fisheries When Do Electricity and Water Mix?

"Fish biologists around the world have been using electricity in water since the mid 1900's."

Dave Mayers
Fisheries Management Biologist

The thought of being in or near water when using anything powered by electricity is a scary proposition for most people. It falls into that "common sense" category of things not to do, or "mother's wisdom" like not running with scissors. But fish biologists around the world have been using electricity in water since the mid 1900's. It is a way of fishing with electricity commonly referred to as electrofishing or electroshocking. It is a tool professionals use to temporally stun fish so they can be netted, counted, measured and returned to the water.

"The electrical field generated extends only about 8 to 10 feet down into the water."

The technique is far from simple considering the equipment needed. Common setups involve a boat and a generator capable of producing 220 volt of AC (alternating current). But that is where the simplicity ends. The voltage produced by the generator is passed through a control box that converts it to DC (direct current), or the kind of electricity produced by a battery. There is a positive charged side and a negative charged side. This "magic box" also modifies the frequency and pulses per second of electricity to produce the needed effects on fish. From there, the positive side of the electrical current is fed through insulated wires out to booms extending in front of the boat and down to metal droppers extending a few inches into the water. The negative side of the power goes to the bottom of the aluminum boat. This creates an electrical field in the water between the boat and the metal droppers. When the boat passes near fish, the electricity causes them to swim towards the boat where they are netted by a worker standing on the bow deck. Plastic net handles are used to net fish out of the water so workers are not contacting the electrical field. Netted fish are placed into an aerated holding tank until they are processed and released.

A smaller backpack shocking unit, powered by special batteries and a small control box, allow biologist wade in shallow streams to collect fish. Here power is generated to insulated poles held in the hand. Small metal hoops on the end of these wands put electricity into the water. As long as workers are wearing rubber, or neoprene chest waders and do not put their hands in the water, it is a safe operation. There are even small "drag boat" versions where workers pull a small floating platform holding generator, control box, and fish holding tank, through the water while passing electricity into the stream with insulated poles.

While this equipment is effective in temporally stunting fish, it does have some limitations. The electrical field generated extends only about 8 to 10 feet down into the water, and about the same amount out to the side. Couple this limitation along with the clear water of most Ozark lakes and rivers, and fish will easily avoid the boat during daytime because they can see so well. For this reason, biologist will usually sample clear lakes and streams at night when fish are less likely to spook, and because this is when they move into shallow water to feed, making them more vulnerable to an electrofishing boat. Boats used at night are equipped with bright halogen lights, much like those of gigging boats, to help see deep into the dark waters at night.

Because electricity and water is potentially lethal to people, many safety precautions are taken. Boats are equipped with pressure sensitive mats that workers stand on. If they step off the mat (fall off boat) the electricity is immediately turned off. With the backpack and drag boat, the electrical wands have automatic switches that turn the electricity off when dropped. Life jackets, rubber boots and gloves are also part of the standard equipment to keep workers safe.

For more information on electrofishing see MDC's Conservationist Magazine July 2007 issue or go to http://www.mdc.mo.gov/conmag/2007/07/10.htm

Twin Pines Conservation Nature Center Grand Opening April 19

The new facility brings forest-heritage crafts, games and outdoor activities to the heart of the Ozarks.

Join the Twin Pines Conservation Education Center staff on April 19 as they celebrate the center's grand opening. The food and fun start at 9 a.m. and activities run until 3 p.m.

The newly opened 456-acre area and interpretive center in Winona gives visitors a glimpse into the region's natural and cultural history. Emphasizing Missouri's forest heritage, displays include vintage logging equipment, a log cabin and an early 20th century schoolhouse.

A number of education and interpretive programs, including Stream Team training and birds of prey, are already on the schedule. Besides organized activities, Twin Pines offers opportunities for hiking, bird watching, nature photography and other nature-related activities. A trail through the area provides access to pine-oak woodland and several other forest types. Other programs, special events and classes are available by appointment. For event information and registration call (573) 325-1381.

Here are just a few of the upcoming events:

- We're done testing…Now what? - **March 8.** Educators can gather teaching ideas for every grade level to help students learn things they need to know for next year's tests.
- Stream Team Introductory Training - **March 29**. Learn how to care for your favorite creek or river. Register online at http://www.mostreamteam.org
- GRAND OPENING - 9 a.m. to 3 p.m. **April 19**. Enjoy food and fun as we celebrate our official opening.
- Waterfest - 9:20 a.m. to 1:30 p.m. **April 25**. Fourth-graders will spend the day celebrating water and addressing grade-level expectations. Call for more information and register at watersheds.org.
- Flying into Birds Week - 9 a.m. to 3 p.m. **May 3**. **May 10** is International Migratory Bird Day. Educators can learn how to get the most out of this national event with suggestions for hands-on activities and materials. This session will address grade-level expectations. Registration requested. Educators only, please.
- Day Shift, Night Shift and Garbage Man - 6 to 7 p.m. **May 8**. Learn about Missouri's birds of prey and their roles in our ecosystem. See live "raptors," including a peregrine falcon, Swainson's hawk and a turkey vulture. Daytime programs available for schools. Call for information and registration.
- Missouri Outdoor Families: Travelers on the Sky Highway - 10 a.m. to 2 p.m. **May 10**. See newly arrived migratory birds at observation areas and discover facts about them at learning stations and on guided hikes.
- Travelers on the Sky Highway - 4 p.m. **May 10**. Join members of the Greater Ozarks Audubon Society and learn more about birds of the Ozarks. A dawn hike is also available on request.

Stream Team River Cleanups

10th Annual Jacks Fork River - June 7 - Contact Ted or Pat Haviland 417/932-4363 JacksForkST713@hotmail.com

2nd Annual Upper Current River - June 14th - Contact Jack or Mary Ficker 573/729-7065, jficker@wildblue.net

Outdoor Calendar

Hunting	Opens	Closes
Crow	11/1/07	3/3/08
Coyote	5/7/07	3/31/08
Squirrel	5/24/08	2/15/09
Turkey		
Youth (resident only)	4/12/08	4/13/08
Spring	4/21/08	5/11/08

Fishing	Opens	Closes
Black Bass (impoundments)	Open All Year	----
Black Bass (streams, Current Jacks Fork and their tributaries)	5/24/08	2/29/09
Trout Management Areas	Open All Year	----
Trout Parks	3/1/08	10/31/08
Nongame Fish Snagging	3/15/08	5/15/08

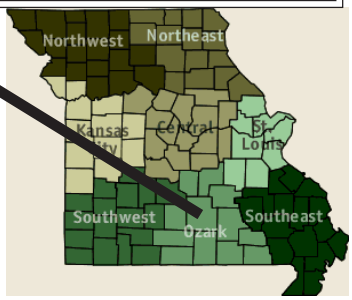
Resident Hunting Permit Prices

- Hunting and Fishing --- $19
- Small Game --- $10
- Youth Deer and Turkey ---$17
- Archery Hunting ---$19
- Firearms Any Deer ---$17
- Firearms First Bonus Deer --- $7
- Firearms Second Bonus Deer --- $7
- Fall Firearms Turkey ---$13
- Spring Turkey --- $17
- Trapping --- $10

Resident Fishing Permit Prices

- Hunting and Fishing --- $19
- Fishing --- $12
- Trout --- $7

We are on the web. To view this newsletter go to www.mdc.mo.gov and click on the Ozark portion of the map located at the bottom of web page.



We're on the Web!
WWW.MISSOURICONSERVATION.ORG

MISSOURI DEPARTMENT OF CONSERVATION

Ozark Regional Office
P.O. Box 138
551 Joe Jones Blvd.
West Plains, MO 65775
Phone: 417/256-7161
Fax: 417/256-0429

Central Office
P.O. Box 180
2901 W. Truman Blvd.
Jefferson City, MO 65109
Phone: 573/751-4115

MDC Mission

> To protect and manage the fish, forest, and wildlife resources of the state,
> To serve the public and facilitate their participation in resource management activities,
> To provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.

Mission of This Newsletter

The mission of this newsletter is to share current information about conservation projects, issues, and programs and to develop working relationships with the citizens of Shannon, Carter, and Ripley Counties.

Share Your Thoughts

If there are any subjects you would like to see in the *Conservation Currents* please contact any employee listed below, or if you have any questions pertaining to the Wildlife Code please contact the Conservation Agent assigned to your county. County assignments and phone numbers are listed below.

Operation Game Thief and Operation Forest Arson

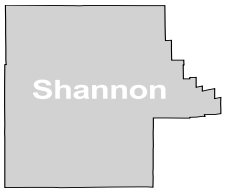
Sponsored by the Conservation Federation of Missouri, the Missouri Dept. of Conservation and the U.S. Forest Service

Phone: 1-800-392-1111

Contact Offices and Names

If you have a question about any of the following topics, here are your contact professionals:

Shannon Co. Field Office
Eminence 573/226-3616



Forestry
Gary Gognat 573/226-3616
Terry Thompson 573/226-3616
Mike Bill 573/226-3616

Private Land Management:
Mike Gaskins 573/226-3241

Conservation Agents:
Brad Hadley 573/292-8540
Ryan Duey 573/858-3334

Wildlife
Dan Drees 573/226-3616

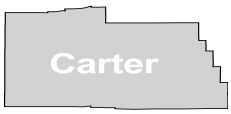
Rhonda Rimer 417/256-7161

Fisheries
Dave Mayers 417/256-7161

Conservation Education
Stephanie Rust 417/256-7161

Outdoor Skills
Larry Lindeman 417/256-7161

Carter Co. Field Office
Van Buren 573/323-8515



Forestry
Mike Norris 573-323-8515

Private Land Management:
Don Foerster 573/996-3619

Conservation Agents:
Ryan Houf 573/323-4727
Mark Wilcoxon 573/323-8523

Wildlife
Dan Drees 573/226-3616

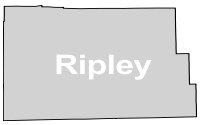
Rhonda Rimer 417/256-7161

Fisheries
Dave Mayers 417/256-7161

Conservation Education
Pat Holloway 573/840-9788

Outdoor Skills
Larry Lindeman 417/256-7161

Ripley Co. Field Office
Doniphan 573/996-2557



Forestry
Steve Paes 573/996-2557

Private Land Management:
Don Foerster 573/996-3619

Conservation Agents:
Darren Killian 573/996-5984
Jason Langston 573/996-2346

Wildlife
Dan Drees 573/226-3616

Rhonda Rimer 417/256-7161

Fisheries
Dave Mayers 417/256-7161

Conservation Education
Pat Holloway 573/840-9788

Outdoor Skills
Larry Lindeman 417/256-7161